

2019

Pony

Maths

For The primary stage

3^{rd.}

Primary



PONY in mathematics

012 10 90 18 17

0100 42 010 98

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Unit 1

Multiplication and Division





Multiplication table

Table 2

2	X	1	=	2
2	X	2	=	4
2	X	3	=	6
2	X	4	=	8
2	X	5	=	10
2	X	6	=	12
2	X	7	=	14
2	X	8	=	16
2	X	9	=	18
2	X	10	=	20

Table 3

3	X	1	=	3
3	X	2	=	6
3	X	3	=	9
3	X	4	=	12
3	X	5	=	15
3	X	6	=	18
3	X	7	=	21
3	X	8	=	24
3	X	9	=	27
3	X	10	=	30

Table 4

4	X	1	=	4
4	X	2	=	8
4	X	3	=	12
4	X	4	=	16
4	X	5	=	20
4	X	6	=	24
4	X	7	=	28
4	X	8	=	32
4	X	9	=	36
4	X	10	=	40

Table 5

5	X	1	=	5
5	X	2	=	10
5	X	3	=	15
5	X	4	=	20
5	X	5	=	25
5	X	6	=	30
5	X	7	=	35
5	X	8	=	40
5	X	9	=	45
5	X	10	=	50

Table 6

6	X	1	=	6
6	X	2	=	12
6	X	3	=	18
6	X	4	=	24
6	X	5	=	30
6	X	6	=	36
6	X	7	=	42
6	X	8	=	48
6	X	9	=	54
6	X	10	=	60

Table 7

7	X	1	=	7
7	X	2	=	14
7	X	3	=	21
7	X	4	=	28
7	X	5	=	35
7	X	6	=	42
7	X	7	=	49
7	X	8	=	56
7	X	9	=	63
7	X	10	=	70

Table 8

8	X	1	=	8
8	X	2	=	16
8	X	3	=	24
8	X	4	=	32
8	X	5	=	40
8	X	6	=	48
8	X	7	=	56
8	X	8	=	64
8	X	9	=	72
8	X	10	=	80

Table 9

9	X	1	=	9
9	X	2	=	18
9	X	3	=	27
9	X	4	=	36
9	X	5	=	45
9	X	6	=	54
9	X	7	=	63
9	X	8	=	72
9	X	9	=	81
9	X	10	=	90

Any number X 0 = 0

Any number X 1 =
the same number

$$3 \times 5 = 5 + 5 + 5$$

Or

$$3 \times 5 = 3 + 3 + 3 + 3 + 3$$

LESSON 1, 2 & 3

PRIMARY 3



$$5 \times 40 = 200$$

$$8 \times 200 = 1600$$

$$60 \times 400 = 24000$$

Complete :

$3 \times 10 = \dots + \dots + \dots = \dots$	
$4 \times 100 = \dots + \dots + \dots = \dots$	
$2 \times 1000 = \dots + \dots = \dots$	
$4 \times 1000 = \dots$	$20 \times 200 = \dots$
$8 \times 30 = \dots$	$10 \times 80 = \dots$
$9 \times 300 = \dots$	$2 \times 4 \times 10 = \dots$
$10 \times 300 = \dots$	$30 \times 50 \times 10 = \dots$
$200 \times 100 = \dots$	$8 \times 4 \times 100 = \dots$
$50 \times 20 = \dots$	$200 \times 5 \times 10 = \dots$

$5 \times \dots = 500$	$\dots \times 40 = 2 \text{ hundreds}$
$7 \times \dots = 350$	$\dots \times 50 = 3 \text{ thousands}$
$8 \times \dots = 4000$	$\dots \times 30 = 18 \text{ tens}$

$5 \times 200 = \dots = \dots \text{ tens}$
$2 \times 500 = \dots = \dots \text{ hundreds}$
$8 \times 500 = \dots = \dots \text{ thousands}$

$$8 \times 500 = \dots \times 1000 = \dots$$

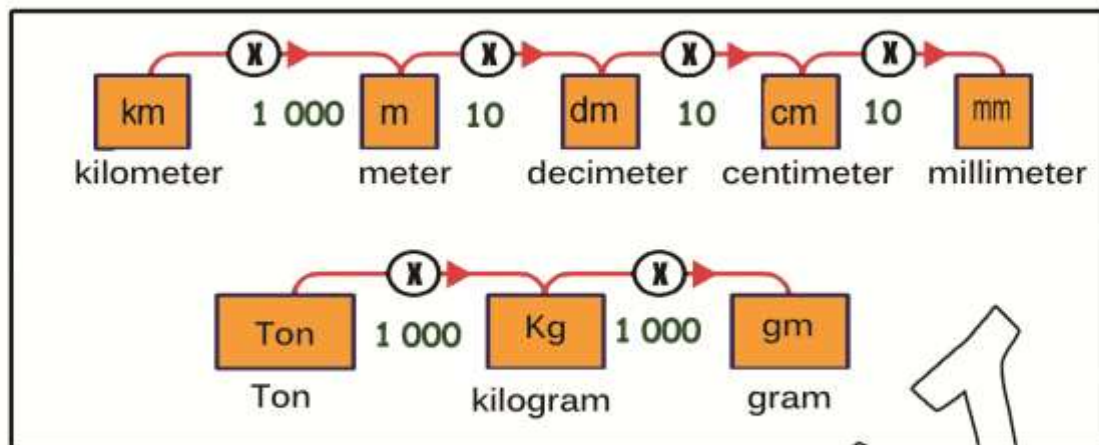
$$50 \times 400 = 200 \times \dots = \dots$$

$$8 \times \dots = 100 \times \dots = 64000$$

$$\dots \times 600 = 30 \times \dots = 30000$$



Unit 1



Complete :

- 17 kilometer = X = meter
- 10 meter = X = decimeter
- 25 meter = X = centimeter
- 45 decimeter = X = centimeter
- 27 centimeter = X = millimeter
- 4 Ton = X = kilogram
- 17 kilogram = X = gram

1) Hany bought 7 books for PT 100 each.

What is the price of books ?

The price of books =

2) A merchant has 45 boxes of soap , each of 10 bars ,
he sold 270 bars . How many bars were left?

Number of bars in boxes=.....

Number of bars left =

3) The monthly wages of the workers in a factory are LE 2000 .

What are the wages of these workers in a year ?

The wages =

Multiplying a 2-digit number or more by a 1-digit number

Diagram illustrating the multiplication of 26 by 4:

$$\begin{array}{r} 26 \\ \times 4 \\ \hline 104 \end{array}$$

Steps shown in the diagram:

- $2 \times 4 = 8$
- $6 \times 4 = 24$
- $8 + 2 = 10$

Final result: $26 \times 4 = 104$

Multiply :

$$\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 97 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 121 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 406 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2134 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4025 \\ \times 4 \\ \hline \end{array}$$

$$25 \times 7 = \dots\dots\dots$$

$$36 \times 9 = \dots\dots\dots$$

$$402 \times 2 = \dots\dots\dots$$

$$4125 \times 4 = \dots\dots\dots$$

Complete

$$\begin{array}{r} \square 56 \\ \times \square \\ \hline 780 \end{array}$$

$$\begin{array}{r} 1\square 2 \\ \times 7 \\ \hline 78\square \end{array}$$

$$\begin{array}{r} 156 \\ \times 4 \\ \hline \square\square\square \end{array}$$

$$\begin{array}{r} 2\square 94 \\ \times 2 \\ \hline \square 3\square\square \end{array}$$

A box contains **162** marbles .

How many marbles are there in **5** boxes?

There are =

the price of 1 kg of potatoes is PT **175**. Find the price of **8** kg .

The price =



Unit 1

LESSON 5

Even Numbers and Odd Numbers

Odd Numbers

Any number its units
digit is
1 , 3 , 5 , 7 , 9
is an **odd** number

Even Numbers

Any number its units
digit is
0 , 2 , 4 , 6 , 8
is an **even** number

Circle the odd numbers

200 , 15 , 63 , 20 , 84 , 913
910 , 212 , 214 , 155 , 473 , 477

Circle the even numbers

48 , 51 , 127 , 367 , 45 , 13
485 , 44 , 222 , 28 , 121 , 415

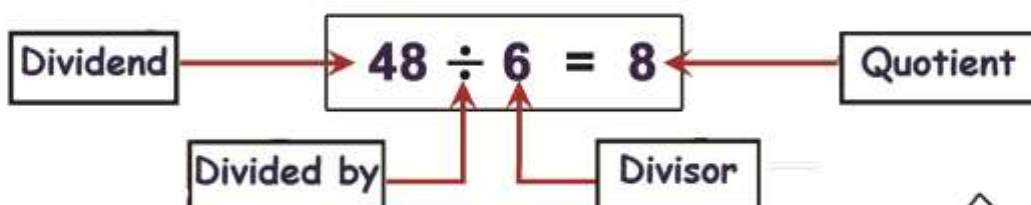
Complete each of the following:

- (a) An even number + an even number = an number.
(b) An odd number + an odd number = an number.
(c) An even number + an odd number = an number.
(d) An even number + 1 = an number.
(e) An odd number + 1 = an number.
(f) An even number - 1 = an number.
(g) An odd number - 1 = an number.
(h) An odd number + 2 = an number.
(i) An even number - 2 = an number.
(j) The even number just after 306 is
(k) The odd number just before 2751 is

- Write two consecutive odd numbers given that
the product of them is 15 .

The two numbers are and

Division



Dividing by a 1-digit number

$$\begin{array}{r}
 963 \div 3 = \dots\dots\dots \\
 900 \div 3 = 300 \\
 60 \div 3 = 20 \\
 3 \div 3 = 1 \\
 \hline
 963 \div 3 = 321
 \end{array}$$

Divide :

$699 \div 3 = \dots\dots\dots$

$846 \div 2 = \dots\dots\dots$

$8844 \div 4 = \dots\dots\dots$

$486 \div 2 = \dots\dots\dots$

$966 \div 3 = \dots\dots\dots$

$8160 \div 8 = \dots\dots\dots$

$126 \div 6 = \dots\dots\dots$

$5155 \div 5 = \dots\dots\dots$

$1218 \div 3 = \dots\dots\dots$

$$\begin{array}{r}
 5525 \\
 5 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 366 \\
 3 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 963 \\
 3 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 9669 \\
 3 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 844 \\
 4 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 9900 \\
 3 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 6129 \\
 3 \overline{) } \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 812 \\
 4 \overline{) } \\
 \hline
 \end{array}$$

$$3 \overline{) 960}$$

$$5 \overline{) 1505}$$

$$6 \overline{) 2412}$$

$$5 \overline{) 1545}$$

$$8 \overline{) 8024}$$

$$5 \overline{) 3045}$$

$$4 \overline{) 1208}$$

$$3 \overline{) 6012}$$



Unit 1

$$\boxed{=}\quad\boxed{X}$$

$$15 \div \dots = 3$$

$$\boxed{=}\quad\boxed{X}$$

$$\frac{15}{\dots} = 3$$

$$\boxed{X}\quad\boxed{=}$$

$$\begin{array}{r} 3 \\ \dots \overline{) 15} \end{array}$$

$$\boxed{=}\quad\boxed{X}$$

$$\dots \div 5 = 3$$

$$\boxed{=}\quad\boxed{X}$$

$$\frac{\dots}{5} = 3$$

$$\boxed{X}\quad\boxed{=}$$

$$\begin{array}{r} 3 \\ 5 \overline{) \dots} \end{array}$$

$$\dots \div 3 = 312$$

$$846 \div \dots = 423$$

$$\dots \div 2 = 305$$

$$966 \div \dots = 322$$

$$\dots \div 4 = 62$$

$$5155 \div \dots = 1031$$

$$\dots \div 8 = 805$$

$$1218 \div \dots = 406$$

$$\frac{\dots}{5} = 120$$

$$\frac{9900}{\dots} = 1100$$

$$\frac{\dots}{3} = 305$$

$$\frac{\dots}{3} = 333$$

$$\frac{6128}{\dots} = 3064$$

$$\frac{9669}{\dots} = 3223$$

$$\frac{\dots}{4} = 2011$$

$$\frac{2436}{\dots} = 406$$

$$\frac{4008}{\dots} = 501$$

$$5 \overline{) 102}$$

$$3 \overline{) 2112}$$

$$6 \overline{) 201}$$

$$4 \overline{) 304}$$

$$\dots \overline{) 2006}$$

$$\dots \overline{) 8024}$$

$$\dots \overline{) 609}$$

$$\dots \overline{) 3045}$$

$$\dots \overline{) 302}$$

$$\dots \overline{) 1208}$$

$$\dots \overline{) 1002}$$

$$\dots \overline{) 6012}$$

Answer the following :

(a) The quotient of 505 by 5 is

(b) How many threes are there in 279 ?

the number of threes =

(c) A merchant wanted to put 626 pieces of candy in two packets so that each packet would contain the same number of pieces .
What is the number of pieces in each packet ?

the number of pieces in each packet =

(d) Samia and mariam's father distributed among them
226 pounds equally . What is the share of each one ?

the share of each one =

(e) An equally number of children are vaccinated against polio in
one ministry of health clinics . If 328 children are vaccinated in
8 days . How many children were vaccinated in 5 days .

The number of children vaccinated in one day

=

The number of children vaccinated in 5 days

=

(f) Sarah paid LE 636 to buy 6 T-shirts of the same kind and price
What is the price of each T-shirt?

the price of each T-shirt =



Unit 1

Exercises on Unit 1

(1) Find the result :

(a) $7 \times 10 =$

(e) $7 \times 2 \times 5 =$

(i) $45 \times 1000 =$

(b) $8 \times 100 =$

(f) $2 \times 4 \times 100 =$

(j) $20 \times 60 =$

(c) $9 \times 1000 =$

(g) $3 \times 6 \times 10 =$

(k) $40 \times 50 =$

(d) $10 \times 10 =$

(h) $4 \times 3 \times 100 =$

(l) $300 \times 40 =$

(2) Find the result of each of the following :

$$\begin{array}{r} 24 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 217 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 504 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 721 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 415 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1215 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6100 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4017 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8231 \\ \times 8 \\ \hline \end{array}$$

(3) Find the result:

(a) $639 \div 3 =$

(d) $550 \div 5 =$

(g) $660 \div 6 =$

(b) $460 \div 2 =$

(e) $164 \div 4 =$

(h) $497 \div 7 =$

(c) $250 \div 5 =$

(f) $488 \div 8 =$

(i) $360 \div 9 =$

(4) Find the result :

$$\begin{array}{r} 2 \overline{) 408} \\ \hline \end{array}$$

$$\begin{array}{r} 5 \overline{) 5010} \\ \hline \end{array}$$

$$\begin{array}{r} 4 \overline{) 488} \\ \hline \end{array}$$

$$\begin{array}{r} 7 \overline{) 4207} \\ \hline \end{array}$$

$$\begin{array}{r} 3 \overline{) 183} \\ \hline \end{array}$$

$$\begin{array}{r} 3 \overline{) 366} \\ \hline \end{array}$$

(5) Complete :

(a) $\times 100 = 900$

(g) $45 \times \dots = 45000$

(b) $10 \times \dots = 90$

(h) $40 \times \dots = 4000$

(c) $100 \times \dots = 1000$

(i) $3 \times 300 = \dots \times 100 = \dots$

(d) $10 \times \dots = 160$

(j) $10 \times 6 \times \dots = 6 \times 1000$

(e) $100 \times 4 \times \dots = 2400$

(k) $20 \times 30 = 10 \times \dots$

(f) $1000 \times \dots = 126000$

(l) $40 \times 50 = 20 \times \dots$

(6) Put the suitable sign (> or < or =) :

(a) 515×5 $515 \div 5$

(d) 20×70 14×100

(b) $369 \div 3$ 100×3

(e) $62 \div 2$ $155 \div 5$

(c) $3 \times 4 \times 1000$ 12×1000 (f) $3752 \div 7$ 3752×7

(7) Choose the correct answer from those between brackets:

(a) Which of the following operations doesn't represent an even number

(3 hundreds + hundred or $30 \times 2 \times 4$ or $45 \div 5$)

(b) If $135 \times 4 = 630$, then $630 \div 4 = \dots$ (120 or 125 or 135)

(c) The number which multiplied by 3129 the result will be 3129 is

(0 or 1 or 10)

(d) The number of the even numbers included between 10 and 20 is

(2 or 4 or 6)

(8) Mohamed has 20 banknote, one hundred pounds each, 7 banknote, 10 pounds each. What Mohamed has?

Mohamed has pounds

(9) If the price of one golden gram is 294 pounds, what is the price of 8 grams of this golden?

The price of 8 grams = pounds

(10) Complete in the same pattern :

(a) 2, 20, 200,,

(b) 215, 430, 860,,

Activities (unit 1)

Example : If $4 \times 8 = 32$ and $4 \times 6 = 24$

then : $4 \times 14 = 32 + 24 = 56$

$$4 \times (8 + 6) = 4 \times 8 + 4 \times 6$$

(1) If you know that $7 \times 5 = 35$, $7 \times 6 = 42$, $7 \times 8 = 56$

use these equalities to complete :

$7 \times 11 = \dots + \dots = \dots$

$7 \times 14 = \dots + \dots = \dots$

$7 \times 13 = \dots + \dots = \dots$

$7 \times 19 = \dots + \dots = \dots$

Example : If $24 \times 3 = 72$ and $24 \times 60 = 1440$

then : $24 \times 63 = 1440 + 72 = 1512$

$$24 \times (60 + 3) = 24 \times 60 + 24 \times 3$$

(2) If you know that $49 \times 7 = 343$, $49 \times 30 = 1470$ Complete:

$49 \times 70 = \dots$

$49 \times 3 = \dots$

$49 \times 77 = \dots + \dots = \dots$

$49 \times 33 = \dots + \dots = \dots$

$49 \times 37 = \dots + \dots = \dots$

$49 \times 73 = \dots + \dots = \dots$

(3) If $32 = 2 + 3 + (3 \times 9)$ $75 = 5 + 7 + (7 \times 9)$

Complete the following equalities (in the same way) :

$68 = 8 + \dots + (6 \times \dots)$

$47 = 7 + 4 + (4 \times \dots)$

$96 = \dots$

$84 = \dots$

$59 = \dots$

Unit 2

Geometry

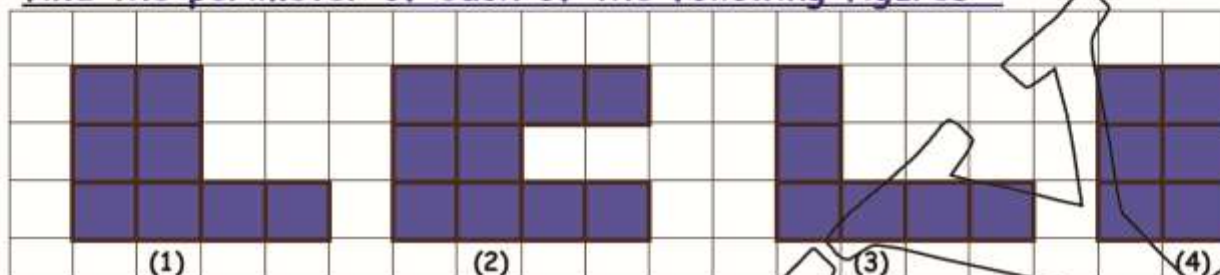


LESSON 1

The Perimeter

The perimeter of any polygon equals the sum of its sides length

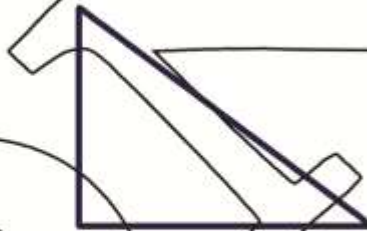
find the perimeter of each of the following figures :



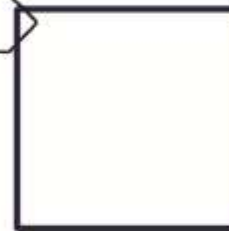
The polygon	(1)	(2)	(3)	(4)
The perimeter				



(1)



(2)

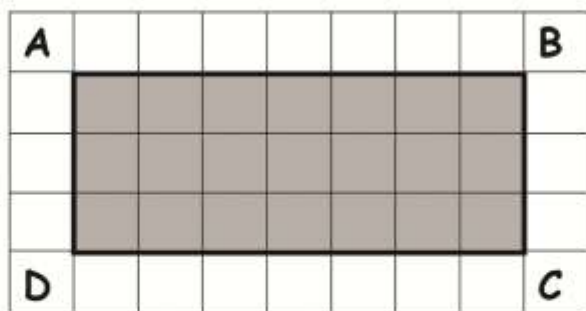


(3)

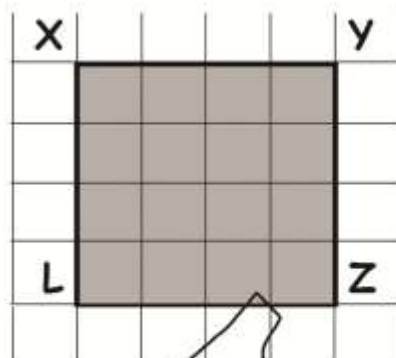
Figure	The perimeter
Figure (1) + + + = cm
Figure (2)
Figure (3)

Calculate the perimeter of a triangle whose sides are 4,5,and 8 cm
The perimeter =

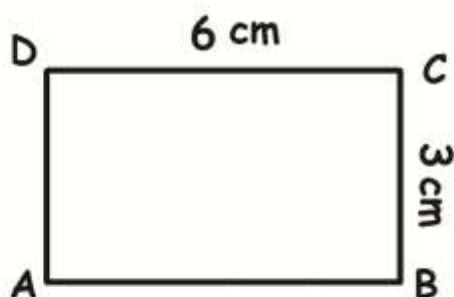
the perimeter of a triangular piece of land is 200 m
Find the length of its third side if you know that the sum of two sides is 140 metres.



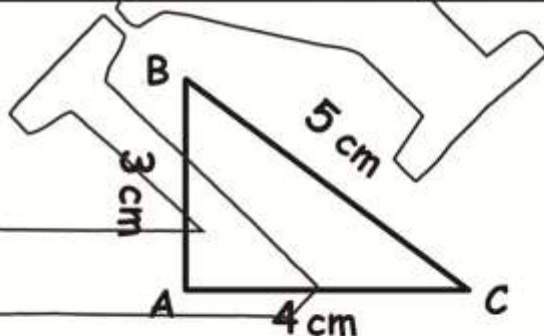
The perimeter of the rectangle
 $ABCD = \dots + \dots + \dots + \dots = \dots \text{ cm}$



The perimeter of the square
 $XYZL = \dots + \dots + \dots + \dots = \dots \text{ cm}$



The perimeter of the rectangle
 $ABCD = \dots + \dots + \dots + \dots = \dots \text{ cm}$



The perimeter of the triangle
 $ABC = \dots + \dots + \dots = \dots \text{ cm}$

the perimeter of rectangle = (length + width) X 2

The perimeter of square = side length X 4

Complete : the perimeter of

- the square whose side length 5 cm =cm
- the square whose side length 7 cm =cm
- the rectangle whose length 8 cm and its width 4 cm
 =cm
- the rectangle whose length 16 cm and its width 10 cm
 =cm
- the rectangle whose length 2 m and its width 150 cm
 =cm

The Area

The area of a shape is the number of units which consists that shape

find the area of each of the following figures :



The area =



The area =

The area =



The area =

The area =



The area =

The area =



The area =

The area =



The area =

The area =



On the lattice ,

Draw the rectangle

ABCD in which :

$AB = 3 \text{ cm}$ and $BC = 5 \text{ cm}$

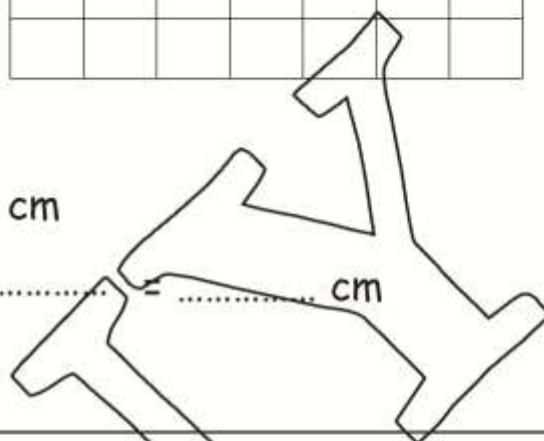


Complete :

$CD = \dots\dots\dots \text{ cm}$, $AD = \dots\dots\dots \text{ cm}$

Its perimeter = $\dots\dots\dots = \dots\dots \text{ cm}$

Its area = $\dots\dots\dots$ ☐



On the lattice ,

Draw the square

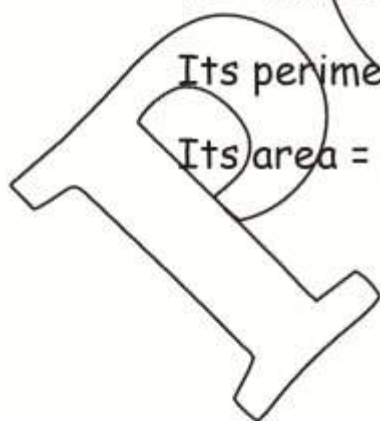
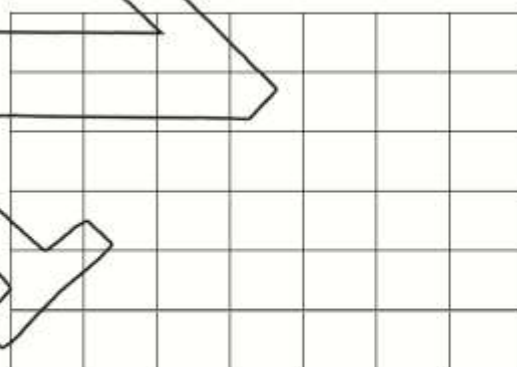
XYZL in which $XY = 4 \text{ cm}$

Complete :

$YZ = \dots\dots\dots \text{ cm}$, $ZL = \dots\dots\dots \text{ cm}$, $XL = \dots\dots\dots \text{ cm}$

Its perimeter = $\dots\dots\dots = \dots\dots \text{ cm}$

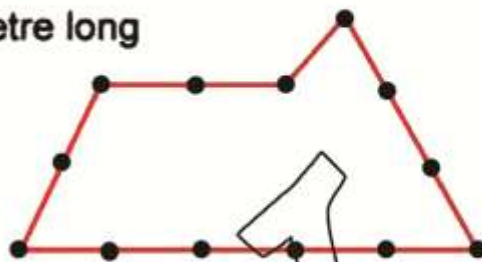
Its area = $\dots\dots\dots$ ☐



Exercises on unit 2

- (1) Find the perimeter of this shape if you know that the distance between each two points is 1 centimetre long

The perimeter = cm

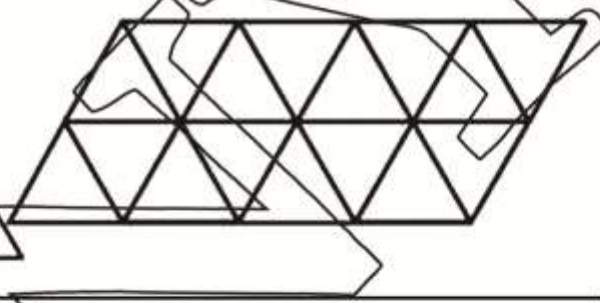


- (2) Find the area of the opposite shape according to the given unit

Area of the shape =

=

=



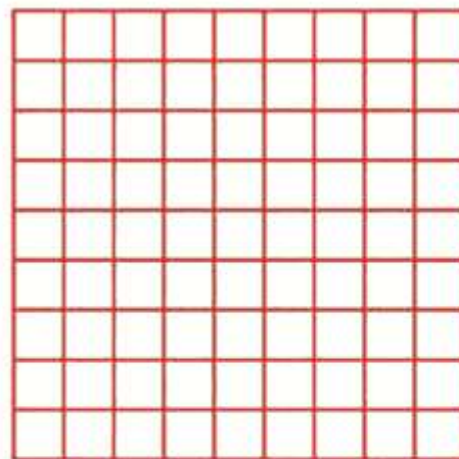
- (3) (a) Find the perimeter of a square whose side length is 3 cm.
the perimeter of the square = = cm

- (b) Find the perimeter of a triangle whose sides are 5 cm, 7 cm, and 10 cm.

The perimeter of the triangle = = cm

- (4) On the opposite lattice:

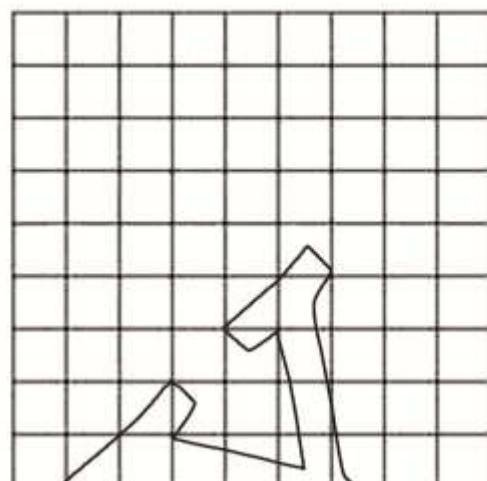
Draw a shape with a perimeter of 8 units of length.



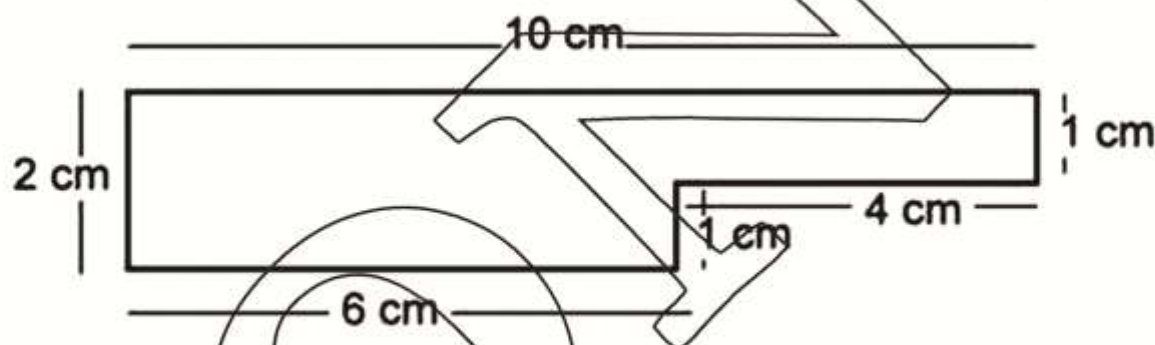
(Consider the length of the small square's side a unit of length and its area a unit of area)

- (5) On the opposite lattice:
Draw a shape with area
of 8 square units.

(Consider the length of the small
square's side a unit of length
and its area a unit of area)



- (6) In the following figure calculate the perimeter of the figure in cm



the perimeter =

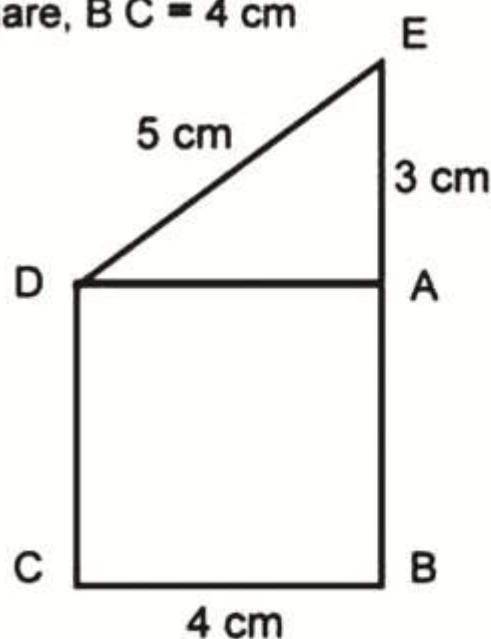
- (7) In the opposite figure A B C D is square, B C = 4 cm

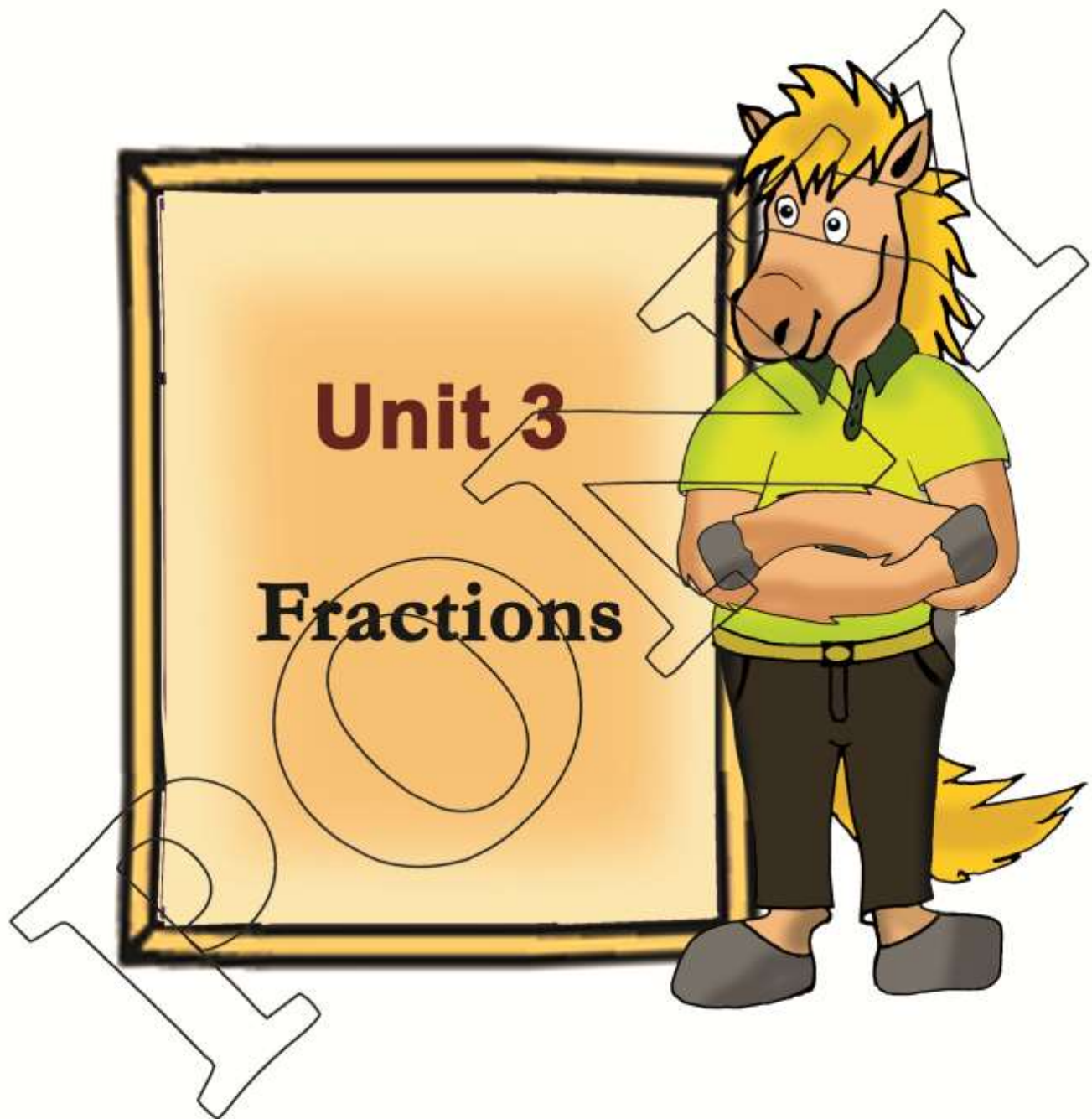
A E = 3 cm , E D = 5 cm.

Calculate its perimeter

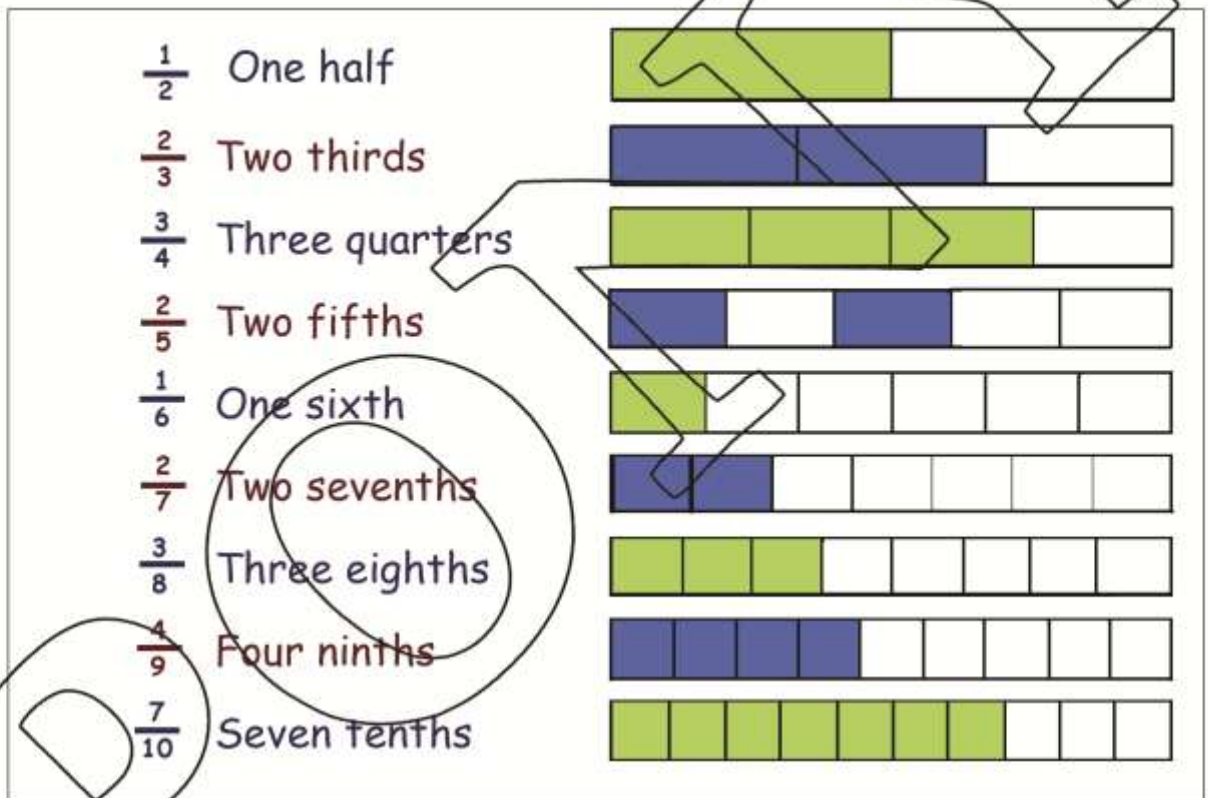
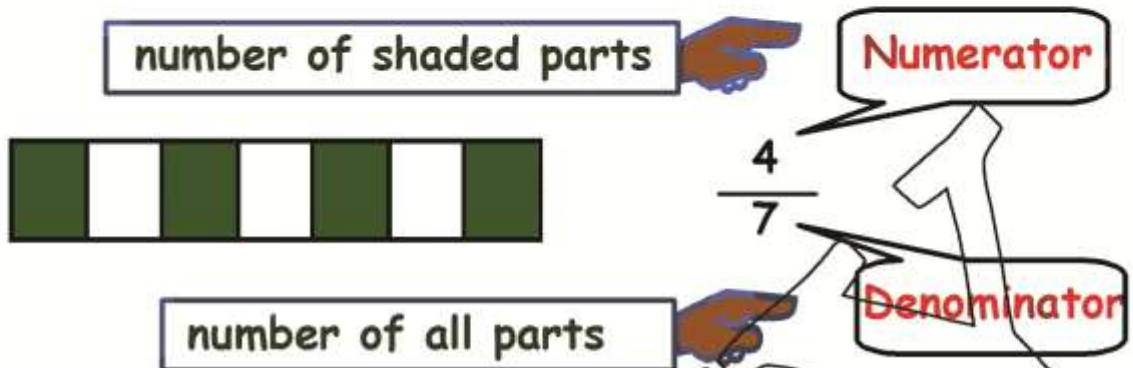
the perimeter =

=





The meaning and Reading of fraction



Write the fraction which is represent the coloured part:



...

—

...



...

—

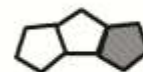
...



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Unit 3



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Colour a part which represents the fraction :



$\frac{3}{4}$



$\frac{2}{3}$



$\frac{1}{4}$



$\frac{1}{3}$



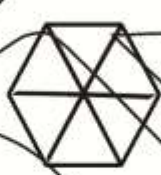
$\frac{1}{2}$



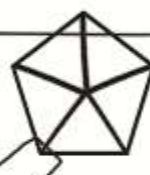
$\frac{1}{2}$



$\frac{5}{8}$



$\frac{4}{6}$



$\frac{1}{5}$



$\frac{3}{5}$

Write the fraction :

Half =

Quarter =

third =

One fifth =

two sixths =

three eighths =

Five ninths =

Four sevenths =

one tenth =

Write each fraction in words :

$$\frac{2}{3} = \dots\dots\dots$$

$$\frac{3}{4} = \dots\dots\dots$$

$$\frac{5}{7} = \dots\dots\dots$$

$$\frac{5}{8} = \dots\dots\dots$$

Equale Fractions

$\frac{1}{2}$ One half		} $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$
$\frac{2}{4}$ Two quarters		
$\frac{3}{6}$ Three sixths		

Diagram showing the conversion of $\frac{1}{2}$ to $\frac{3}{6}$ by multiplying both the numerator and denominator by 3:

$$\frac{1}{2} \xrightarrow{\times 3} \frac{3}{6}$$

Diagram showing the conversion of $\frac{4}{8}$ to $\frac{1}{2}$ by multiplying both the numerator and denominator by 4:

$$\frac{4}{8} \xrightarrow{\times 4} \frac{1}{2}$$

Complete :

$$\frac{6}{8} = \frac{3}{\dots\dots} \quad \frac{5}{7} = \frac{10}{\dots\dots}$$

$$\frac{3}{4} = \frac{6}{\dots\dots}$$

$$\frac{\dots\dots}{4} = \frac{1}{2} \quad \frac{3}{5} = \frac{\dots\dots}{10}$$

$$\frac{2}{\dots\dots} = \frac{8}{12}$$

Diagram showing the conversion of $\frac{2}{2}$ to $\frac{4}{4}$ to $\frac{8}{8}$ to 1:

$$\frac{2}{2} = \frac{4}{4} = \frac{8}{8} = 1$$

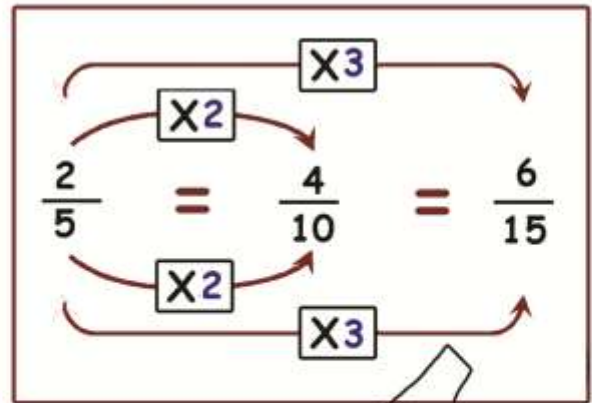
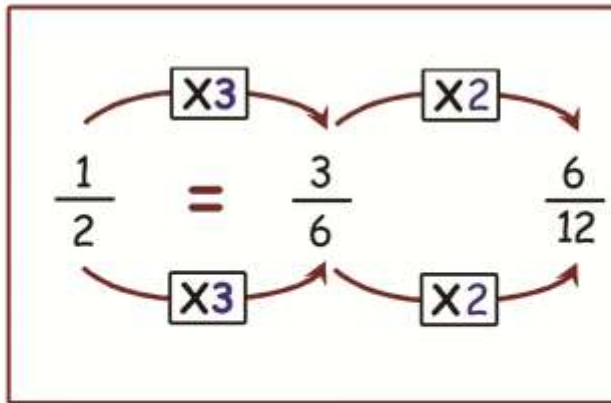
Labels: 2 Half, 4 Quarter, 8 eighth

$$1 = \frac{5}{\dots\dots} \quad \frac{4}{\dots\dots} = \frac{3}{3} \quad \frac{2}{2} = \frac{4}{\dots\dots}$$

$$1 = \frac{2}{\dots\dots} = \frac{3}{\dots\dots} = \frac{\dots\dots}{4} = \frac{5}{\dots\dots} = \frac{\dots\dots}{6}$$



Unit 3



$$\frac{1}{2} = \frac{3}{6} = \frac{4}{8}$$

$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16}$$

$$\frac{4}{6} = \frac{2}{3} = \frac{4}{6}$$

$$\frac{5}{25} = \frac{1}{5} = \frac{2}{10}$$

Simplifying fractions

Reduce each of the following fractions to its simplest form:

$$\frac{8}{16} = \dots\dots\dots$$

$$\frac{4}{12} = \dots\dots\dots$$

$$\frac{7}{28} = \dots\dots\dots$$

$$\frac{3}{6} = \dots\dots\dots$$

$$\frac{25}{50} = \dots\dots\dots$$

$$\frac{12}{24} = \dots\dots\dots$$

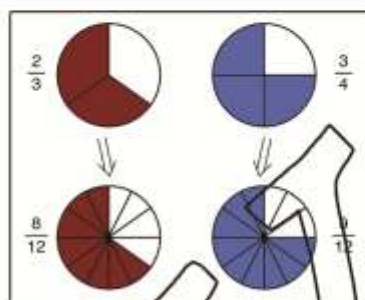
$$\frac{18}{48} = \dots\dots\dots$$

$$\frac{12}{18} = \dots\dots\dots$$

Comparing and ordering fractions

Which is greater, $\frac{2}{3}$ or $\frac{3}{4}$?

$$\begin{array}{ccc} 8 & \frac{2}{3} & \frac{3}{4} & 9 \\ & \times & & \\ & \frac{2}{3} & & \frac{3}{4} \\ & & & \\ & \frac{2}{3} & < & \frac{3}{4} \end{array}$$



Put the suitable sign $<$, $=$ or $>$

$$\frac{1}{4} \quad \square \quad \frac{3}{4}$$

$$\frac{5}{7} \quad \square \quad 1$$

$$\frac{2}{4} \quad \square \quad \frac{3}{6}$$

$$\frac{3}{6} \quad \square \quad \frac{3}{4}$$

$$\frac{3}{7} \quad \square \quad \frac{5}{7}$$

$$\frac{4}{6} \quad \square \quad \frac{8}{12}$$

Arrange in an ascending order and in a descending order

$$\frac{7}{11}, \frac{5}{11}, \frac{8}{11}, \frac{2}{11}, \frac{1}{11}$$

ascending order

.....,,,,

descending order

.....,,,,

$$\frac{2}{9}, \frac{2}{13}, \frac{2}{11}, 1, \frac{2}{5}$$

ascending order

.....,,,,

descending order

.....,,,,



Unit 3

LESSON 4

Adding and Subtracting Fractions

Add:

$$\frac{3}{7} + \frac{2}{7} = \frac{\dots}{\dots}$$

$$\frac{1}{5} + \frac{2}{5} = \frac{\dots}{\dots}$$

$$\frac{5}{9} + \frac{2}{9} + \frac{1}{9} = \frac{\dots}{\dots}$$

$$\frac{2}{7} + \frac{3}{7} + \frac{1}{7} = \frac{\dots}{\dots}$$

$$\frac{2}{9} + \frac{4}{9} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$$

$$\frac{4}{11} + \frac{2}{11} = \frac{\dots}{\dots}$$

Subtract :

$$\frac{4}{5} - \frac{2}{5} = \frac{\dots}{\dots}$$

$$\frac{5}{9} - \frac{2}{9} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$$

$$1 - \frac{2}{5} = \frac{\dots}{\dots}$$

$$\frac{8}{9} - \frac{5}{9} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$$

$$\frac{7}{8} - \frac{3}{8} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$$

$$1 - \frac{5}{9} = \frac{\dots}{\dots}$$

Complete :

$$\frac{3}{7} + \frac{\dots}{\dots} = \frac{5}{7}$$

$$\frac{\dots}{\dots} - \frac{2}{\dots} = \frac{3}{7}$$

$$\frac{\dots}{\dots} - \frac{2}{5} = \frac{3}{5}$$

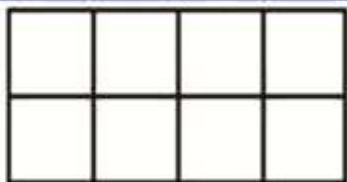
$$\frac{\dots}{\dots} + \frac{4}{9} = \frac{8}{9}$$

$$\frac{7}{11} - \frac{\dots}{\dots} = \frac{2}{11}$$

$$1 - \frac{\dots}{\dots} = \frac{5}{9}$$

Exercises on unit 3

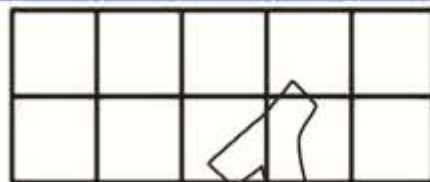
(1) Colour the parts that represent the fraction written under each shape:



$$\frac{5}{8}$$

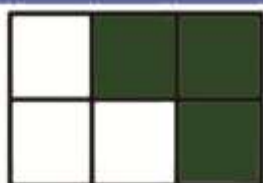


$$\frac{2}{3}$$

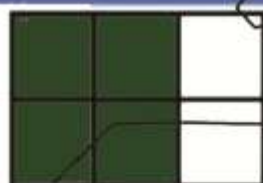


$$\frac{2}{5}$$

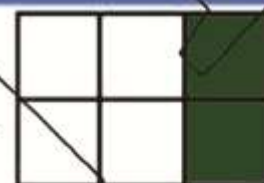
(2) Circle the fraction that represents the coloured part in each of the following shapes:



$$\frac{1}{3}, \frac{1}{6}, \frac{1}{4}, \frac{1}{2}$$



$$\frac{3}{6}, \frac{2}{3}, \frac{1}{4}, \frac{3}{4}$$



$$\frac{1}{3}, \frac{2}{3}, \frac{2}{4}, \frac{3}{4}$$

(3) Complete:

$$\frac{1}{5} + \frac{2}{5} = \dots\dots\dots$$

$$\frac{2}{7} = \frac{6}{\dots\dots\dots}$$

$$\frac{8}{9} - \frac{5}{9} = \dots\dots\dots$$

$$\frac{6}{10} = \frac{3}{\dots\dots\dots}$$

$$1 - \frac{5}{8} = \dots\dots\dots$$

$$\frac{6}{16} = \frac{\dots\dots\dots}{2}$$

(4) Circle what each of the following fractions equals:

(a) $\frac{3}{5}$

($\frac{1}{5} + \frac{3}{5}$, $\frac{6}{20}$, $1 - \frac{2}{5}$)

(b) $\frac{2}{3}$

($\frac{6}{9}$, $\frac{9}{11}$, $\frac{9}{15}$)

(c) $\frac{6}{7}$

($\frac{3}{7} + \frac{3}{7}$, $\frac{9}{14}$, $\frac{12}{15}$)



Unit 3

(5) Complete using one of the signs $<$, $=$ or $>$:

$$\frac{5}{8} \square \frac{7}{8}$$

$$\frac{2}{3} \square 1$$

$$\frac{11}{13} \square \frac{7}{13}$$

$$1 \square \frac{7}{7}$$

(6) Order the following fractions ascendingly and descendingly:

$$\frac{1}{10}, \quad \frac{3}{10}, \quad \frac{2}{10}, \quad \frac{9}{10}$$

Ascending order:

Descending order:

(7) Choose the correct answer

(a) $\frac{15}{25} = \frac{\dots}{5}$ (3, 5, 7)

(b) Which the following fraction whose represent the whole one

$$\left(\frac{4}{4}, \frac{4}{3}, \frac{1}{4} \right)$$

(c) $\frac{5}{9} \square \frac{6}{9}$

($>$, $<$, $=$)

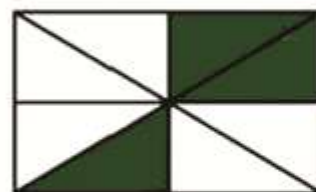
(8) Which of the following shapes represent half?



(a)



(b)



(c)

Unit 4

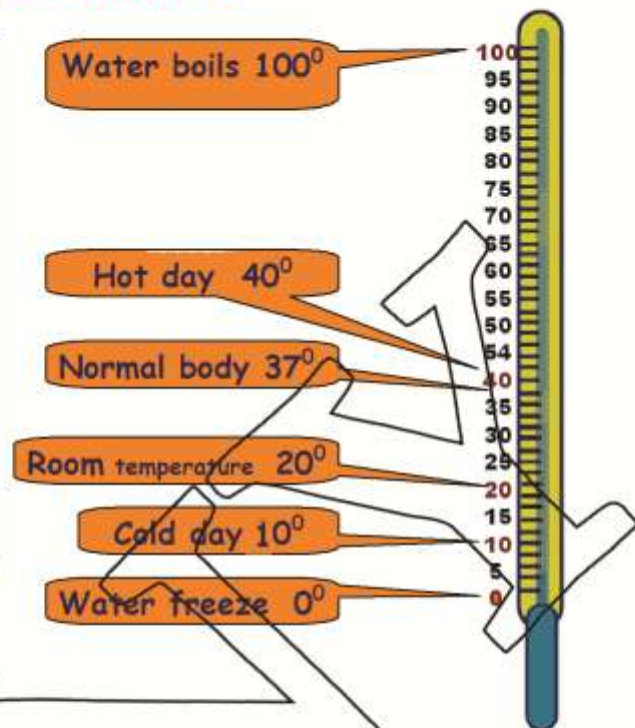
Measurement



LESSON 1

Measuring Temperature

Thermometer is used for measuring temperature.
Degree [$^{\circ}$]: is the unit of measuring temperature.
 The thermometer is marked with the **Celsius** scale (c).



Complete

- 1) the water is boils at $^{\circ}$.
- 2) the water freeze at $^{\circ}$.
- 3) the normal body temperature is $^{\circ}$.
- 4) the temperature of a hot day is $^{\circ}$.
- 5) the temperature of a cold day is $^{\circ}$.
- 6) is used to measure the temperature.
- 7) The unit of measuring the temperature is

The temperatures recorded in one of the week were as follows:

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Temp.	22°	23°	21°	18°	19°	20°	21°

Answer the following questions :

- a) On what day the temperature the highest?
- b) On what day the temperature the lowest ?
- c) Which two days have equal temperature? and

Kilometre (km)

metre (m)

centimeter (cm)

1 kilometre = 1000 metre
 $\frac{1}{2}$ kilometre = 500 metre
 $\frac{1}{4}$ kilometre = 250 metre
 $\frac{3}{4}$ kilometre = 750 metre

1 metre = 100 cm
 $\frac{1}{2}$ metre = 50 cm
 $\frac{1}{4}$ metre = 25 cm
 $\frac{3}{4}$ metre = 75 cm

Complete :

3 metres = cm

18 metres = cm

800 cm = m

50 000cm = m

50 cm = m

3 m and 55 cm = cm

8 m and a quarter = cm

$\frac{1}{4}$ m and 30 cm = cm

726 cm = m and cm

8020 cm = m and cm

6 kilometres = m

60 kilometres = m

9000 m = km

21 000 m = km

750 m = km

8 km and 620 m = m

21 km and 60 m = m

$\frac{3}{4}$ km and 350 m = m

8450 m = km and m

60200 m = km and m

Choose the correct answer :

a) The length of a pen can be (10 cm , 10 km , 10 m)

b) The height of a house can be (48 m , 8 km , 200cm)

c) The distance between Cairo and Alexandria can be
 (78 m , 200 km , 600 cm)

d) 5 km and 20 m = cm (5020 , 5200 , 5002)

The distance between Yassir's school and his house is 2 km, 750m
 His club is 2250 m away from his house . What is the difference
 between the two distance ?

The difference =



Measuring weight

$$1 \text{ kilogram (kg)} = 1000 \text{ gram (gm)}$$

$$\frac{1}{2} \text{ kilogram (kg)} = 500 \text{ gram (gm)}$$

$$\frac{1}{4} \text{ kilogram (kg)} = 250 \text{ gram (gm)}$$

$$\frac{3}{4} \text{ kilogram (kg)} = 750 \text{ gram (gm)}$$

Complete :

$$3 \text{ kg} = \dots\dots\dots \text{ gm}$$

$$7 \text{ kg} = \dots\dots\dots \text{ gm}$$

$$6 \text{ 000 gm} = \dots\dots\dots \text{ kg}$$

$$24 \text{ 000 gm} = \dots\dots\dots \text{ kg}$$

$$\frac{1}{2} \text{ kg} = \dots\dots\dots \text{ gm}$$

$$\frac{3}{4} \text{ kg} = \dots\dots\dots \text{ gm}$$

$$250 \text{ gm} = \dots\dots\dots \text{ kg}$$

$$3 \text{ kg and } 450 \text{ gm} = \dots\dots\dots \text{ gm}$$

$$12 \text{ kg and } 350 \text{ gm} = \dots\dots\dots \text{ gm}$$

$$6 \text{ 850 gm} = \dots\dots \text{ kg } \dots\dots \text{ gm}$$

$$6 \text{ 020 gm} = \dots\dots \text{ kg } \dots\dots \text{ gm}$$

$$3 \frac{1}{2} \text{ kg} = \dots\dots\dots \text{ gm}$$

$$7 \frac{3}{4} \text{ kg} = \dots\dots\dots \text{ gm}$$

$$6 \text{ 500 gm} = \dots\dots\dots \text{ kg}$$

$$5 \text{ kg} = \dots\dots\dots \text{ gm}$$

$$12 \text{ kg} = \dots\dots\dots \text{ gm}$$

$$4 \text{ 000 gm} = \dots\dots\dots \text{ kg}$$

$$12 \text{ 000 gm} = \dots\dots\dots \text{ kg}$$

$$\frac{1}{4} \text{ kg} = \dots\dots\dots \text{ gm}$$

$$500 \text{ gm} = \dots\dots\dots \text{ kg}$$

$$750 \text{ gm} = \dots\dots\dots \text{ kg}$$

$$3 \text{ kg and } 200 \text{ gm} = \dots\dots\dots \text{ gm}$$

$$10 \text{ kg and } 50 \text{ gm} = \dots\dots\dots \text{ gm}$$

$$19 \text{ 550 gm} = \dots\dots \text{ kg } \dots\dots \text{ gm}$$

$$12 \text{ 320 gm} = \dots\dots \text{ kg } \dots\dots \text{ gm}$$

$$5 \frac{1}{4} \text{ kg} = \dots\dots\dots \text{ gm}$$

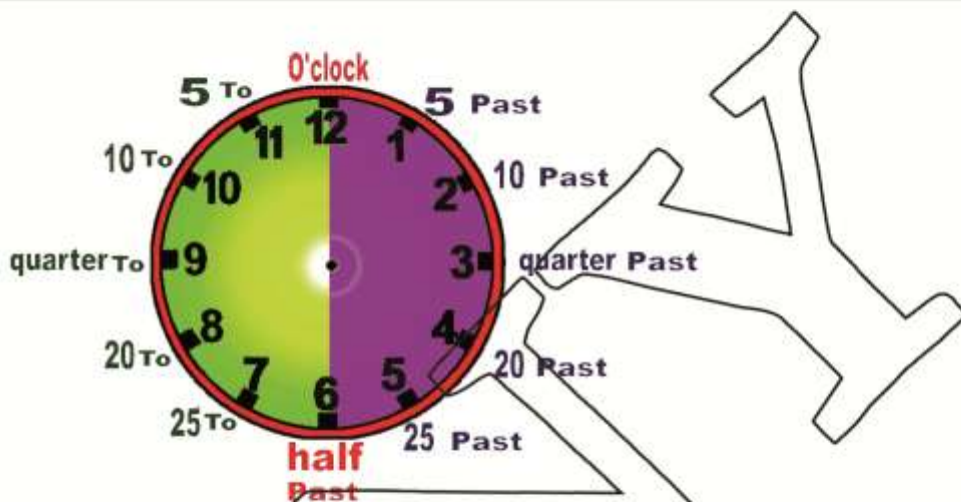
$$12 \frac{1}{2} \text{ kg} = \dots\dots\dots \text{ gm}$$

$$12 \text{ 250 gm} = \dots\dots\dots \text{ kg}$$

Measuring Time

An hour = 60 minutes
Half ($\frac{1}{2}$) an hour = 30 minutes
Third ($\frac{1}{3}$) an hour = 20 minutes

Two thirds ($\frac{2}{3}$) an hour = 40 minutes
Quarter ($\frac{1}{4}$) an hour = 15 minutes
Three quarters ($\frac{3}{4}$) an hour = 45 minutes



It's 3 O'clock
03 : 00



It's 5 past 3
03 : 05



It's 10 past 3
03 : 10



It's quarter past 3
03 : 15



It's 20 past 3
03 : 20



It's 25 past 3
03 : 25



It's half past 3
03 : 30



It's 25 to 4
03 : 35



It's 20 to 4
03 : 40



It's quarter to 4
03 : 45



It's 10 to 4
03 : 50



It's 5 to 4
03 : 55



Unit 4

Write the time shown by the clock :



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's



:

It's

Write the time shown by the clock :



04:00

It's



02:05

It's



04:10

It's



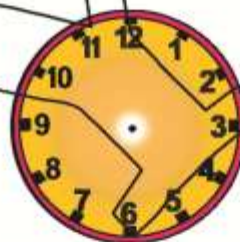
09:15

It's



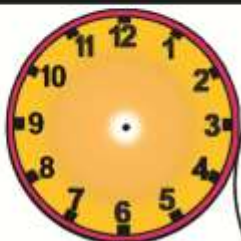
07:20

It's



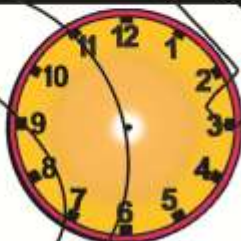
03:25

It's



10:30

It's



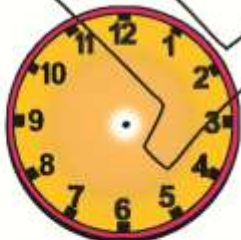
11:35

It's



05:40

It's



12:45

It's



01:50

It's



09:55

It's



Unit 4

Draw the hands Then complete the missing



It's 8 o'clock



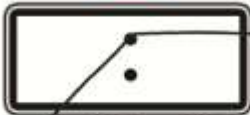
It's 5 past 9



It's 10 past 2



It's quarter past 5



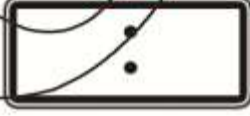
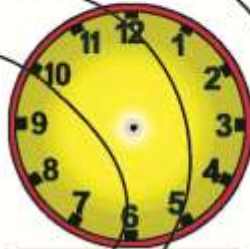
It's 20 (third) past 11



It's 25 past 2



It's half past 1



It's 25 to 3



It's 20 to 4



It's quarter to 6



It's 10 to 5



It's 5 to 1



1 day = 24 hours
$\frac{1}{2}$ day = 12 hours
$\frac{1}{3}$ day = 8 hours
$\frac{1}{4}$ day = 6 hours

1 hour = 60 minutes
$\frac{1}{2}$ hour = 30 minutes
$\frac{1}{3}$ hour = 20 minutes
$\frac{1}{4}$ hour = 15 minutes

- (a) An hour = minutes
 (b) 2 hours = minutes
 (c) $1\frac{1}{4}$ hours = minutes
 (d) 1 day = hours
 (e) 2 day = hours
 (f) $2\frac{3}{4}$ hours = minutes
 (g) An hour and a half = + = minutes
 (h) 2 hour and a quarter = + = minutes
 (i) An hour and 25 minutes = + = minutes
 (j) 150 minutes = hours and minutes
 (k) 105 minutes = hours and minutes
 (l) A day and a half = + = hours
 (m) A day and a quarter = + = hours
 (n) 2 day and 10 hours = + = hours
 (o) $2\frac{1}{2}$ hours = + = minutes
 (p) 55 hours = day and hours
 (q) 32 hours = day and hours

Arrange in ascending order :

3 hours , 100 minutes , an hour and a half

..... , ,

a day , 20 hours , 48 hours

..... , ,



Unit 4



Days of the week

الجمعة الخميس الأربعاء الثلاثاء الإثنين الأحد السبت
Friday Thursday Wednesday Tuesday Monday Sunday Saturday

1 week = 7 days

Months of the year

1 st	January	31	يناير	7 th	July	31	يوليو
2 nd	February	28-29	فبراير	8 th	August	31	أغسطس
3 rd	March	31	مارس	9 th	September	30	سبتمبر
4 th	April	30	إبريل	10 th	October	31	أكتوبر
5 th	May	31	مايو	11 th	November	30	نوفمبر
6 th	June	30	يونيو	12 th	December	31	ديسمبر

1 year = 12 months

$\frac{1}{2}$ year = 6 months

$\frac{1}{4}$ year = 3 months

$\frac{1}{3}$ year = 4 months



$$31 \times 7 = 217 \text{ days}$$

$$30 \times 4 = 120 \text{ days}$$

$$1 \times 28 = 28 \text{ days}$$

$$1 \text{ year} = 365 \text{ days}$$

Complete :

- The 1st day of the week is
- The last day of the week is
- The fifth day of the week is

- The day after :

Sunday is
Saturday is
Wednesday is

-The day before:

Friday is
Thursday is
Wednesday is

Complete :

- The 1st month of the year is
- The last month of the year is
- The fifth month of the year is

The month after :

- January is
- February is
- November is

The month before :

- February is
- June is
- August is

Complete :

- (a) week = days
- (b) 3 weeks = days
- (c) 14 days = weeks
- (d) 35 days = weeks

- (e) 1 year = months
- (f) 2 years = months
- (g) 12 months = years
- (h) 24 months = years

(i) 2 weeks and 6 days = + = days

(j) 3 weeks and 6 days = + = days

(k) 9 days = week and days

(l) 25 days = week and days

(m) 2 years and a half = + = months



Unit 4

- (n) 1 year and a quarter = + = months
- (o) 2 years and 4 months = + = months
- (p) $3 \frac{1}{2}$ years = + = months
- (q) $1 \frac{1}{4}$ years = months
- (r) 18 months = year and months
- (s) 15 months = year and months

Write the answer :

- (1) The months that have 30 days are
-
- (2) The months that have 30 days are
-
- (3) February from this year has days
- (4) The number of days from this year
- = (30 X) + (31 X) +
- = + + = days

	January	February	March	April
Saturday	7 14 21 28	4 11 18 25	4 11 18 25	1 8 15 22 29
Sunday	1 8 15 22 29	5 12 19 26	5 12 19 26	2 9 16 23 30
Monday	2 9 16 23 30	6 13 20 27	6 13 20 27	3 10 17 24
Tuesday	3 10 17 24 31	7 14 21 28	7 14 21 28	4 11 18 25
Wednesday	4 11 18 25	1 8 15 22	1 8 15 22 29	5 12 19 26
Thursday	5 12 19 26	2 9 16 23	2 9 16 23 30	6 13 20 27
Friday	6 13 20 27	3 10 17 24	3 10 17 24 31	7 14 21 28
	May	June	July	August
Saturday	6 13 20 27	3 10 17 24	1 8 15 22 29	5 12 19 26
Sunday	7 14 21 28	4 11 18 25	2 9 16 23 30	6 13 20 27
Monday	1 8 15 22 29	5 12 19 26	3 10 17 24 31	7 14 21 28
Tuesday	2 9 16 23 30	6 13 20 27	4 11 18 25	1 8 15 22 29
Wednesday	3 10 17 24 31	7 14 21 28	5 12 19 26	2 9 16 23 30
Thursday	4 11 18 25	1 8 15 22 29	6 13 20 27	3 10 17 24 31
Friday	5 12 19 26	2 9 16 23 30	7 14 21 28	4 11 18 25
	September	October	November	December
Saturday	30 2 9 16 23	7 14 21 28	4 11 18 25	30 2 9 16 23
Sunday	1 8 15 22 29	6 13 20 27	5 12 19 26	31 3 10 17 24
Monday	2 9 16 23 30	7 14 21 28	6 13 20 27	4 11 18 25
Tuesday	3 10 17 24 31	8 15 22 29	7 14 21 28	5 12 19 26
Wednesday	4 11 18 25	9 16 23 30	8 15 22 29	6 13 20 27
Thursday	5 12 19 26	10 17 24 31	9 16 23 30	7 14 21 28
Friday	6 13 20 27	11 18 25	10 17 24 31	8 15 22 29

	March				
Saturday		4	11	18	25
Sunday		5	12	19	26
Monday		6	13	20	27
Tuesday		7	14	21	28
Wednesday	1	8	15	22	29
Thursday	2	9	16	23	30
Friday	3	10	17	24	31

Write the answer :

- (1) The day of 13/3 from this year is
- (2) The date of the first sunday in March from this year is



Exercises on Unit 4

(1) Complete

4 metres = centimeters

3 weeks = days

3 kilograms = grams

2 years = months

1 year and two months = months

2 hours and a quarter = minutes

1 hours and 50 minutes = minutes

(2) (a) What is the unit used to measure temperature?

(b) What is the normal human temperature?

(c) How many minutes are there in half of an hour?

(3) Arrange ascendingly:

(a) 2400 grams , 250 grams , 1 kilograms

(b) 50 days, 200 hours, 10 days

(c) 3 kilometres , 4000 centimeters , 500 metres , 2000 metres

(4) : (a) What is the suitable unit for measuring the distance between two countries

(b) What is the suitable unit for calculating the time of a school period?

(c) What is the suitable unit for measuring the weight of gold work?





Unit 4

(5) Telling the Time in each of the following :



.....
.....



.....
.....



.....
.....



.....
.....

(6) Draw the hands of the watch



It's 5 min to six



It's 10 min past 4



It's half past 11



It's 25 min to 2

Activities (unit 4)

(1) What kind of clothes would you advise your classmates to wear on the days with the following temperatures :

higher lower

37 ° 30 °

15 ° 10 °

22 ° 17 °

(2) (a) What is the birthday of someone who celebrates it only once every 4 years?

(b) Which is heavier: 10 kilograms of iron or 10 kilograms of cotton?

- (3) How long is the period of time that starts on the beginning of Monday, 15 October, 2009 and ends with the end of Saturday, 27 October 2009?

.....

.....

- (4) A person started a job on the first of March and finished it at the end of August of the same year. How many months did he spend doing this job?

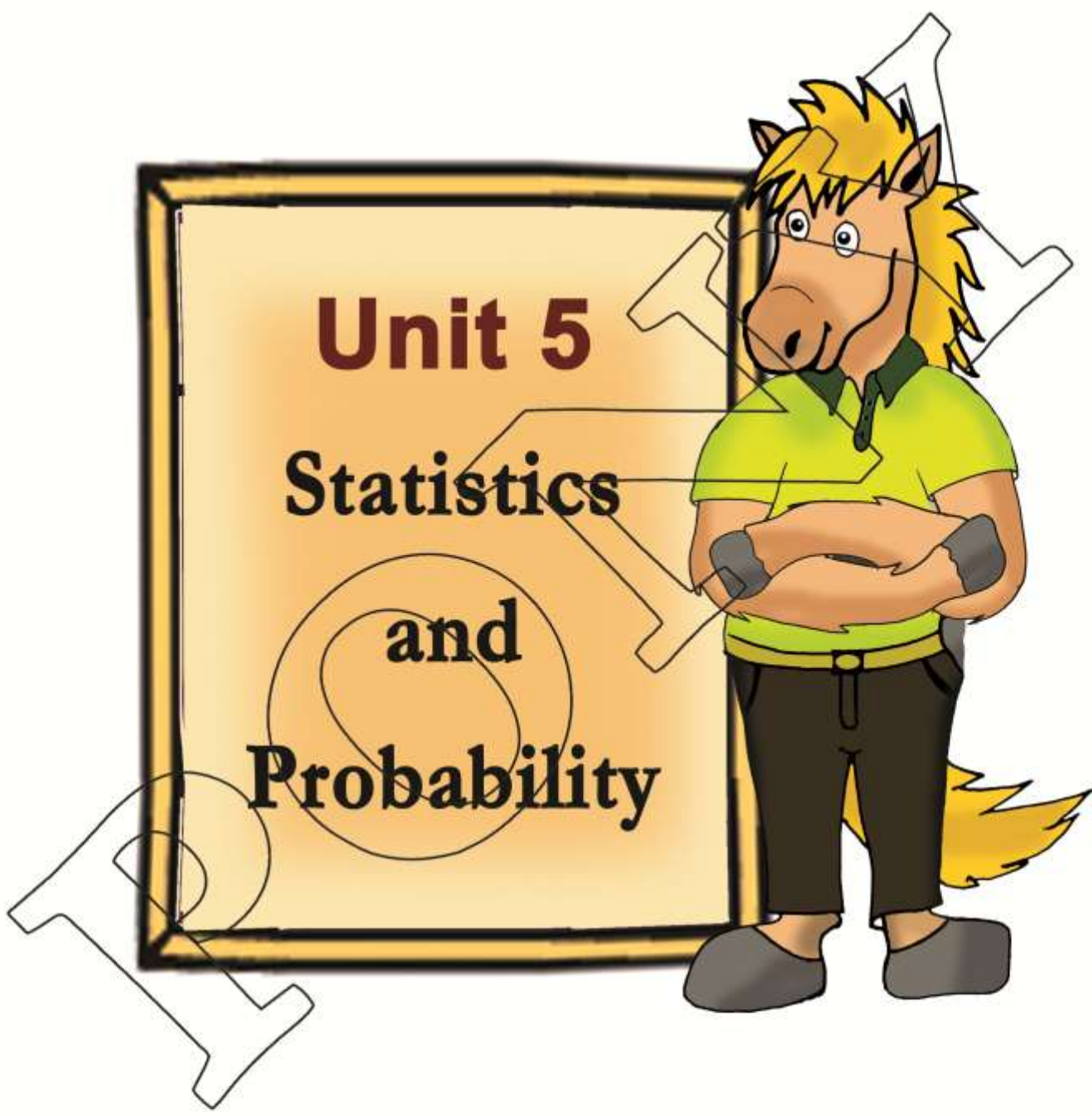
.....

- (5) Medhat walks a distance of 2 kilometres in 20 minutes. How much time does it take him to walk a distance of six kilometres if he walks consistently (with the same speed)? What is the distance he covers in an hour and a half?

.....

.....

PONY



Unit 5

Statistics and Probability

Collecting and Representing Data

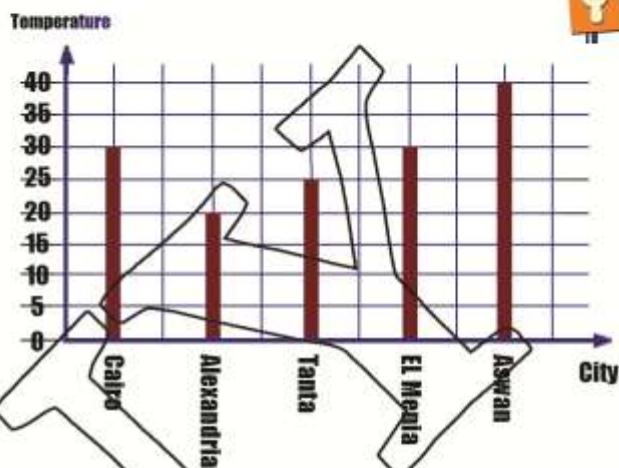
Use the opposite bar-lines to complete the table :

City	Cairo	Alex.	Tanta	El Menia	Aswan
Temperature

The highest temperature was in

The lowest temperature was in

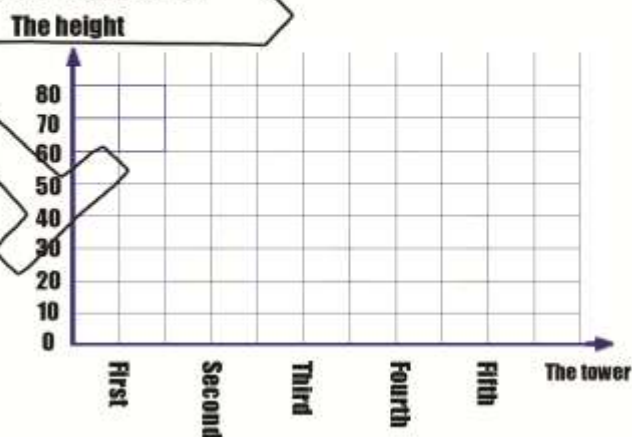
The difference between the highest and the lowest temperature was



The following table shows the heights of four towers:

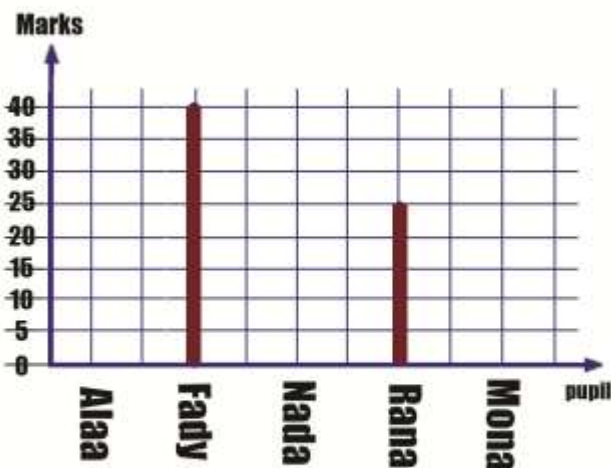
The tower	1 st	2 nd	3 rd	4 th	5 th
The height	40	10	50	20	30

Represent these data by bar-lines



Complete the following table and the opposite graph :

pupil	Alaa	Fady	Nada	Rana	Mona
Marks	30		20		35





Unit 5

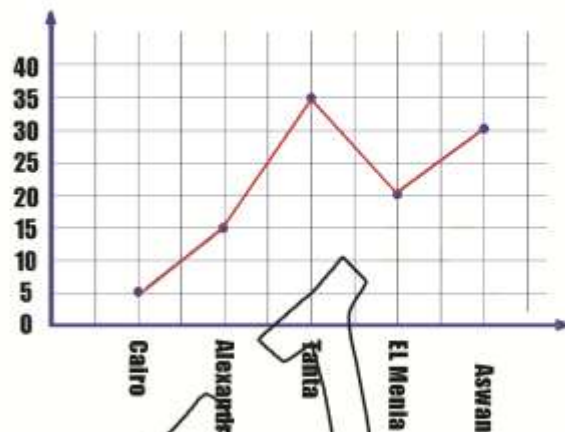
Use the opposite broken-lines to complete the table :

City	Cairo	Alex.	Tanta	El Menia	Aswan
Temperature

The highest temperature was in

The lowest temperature was in

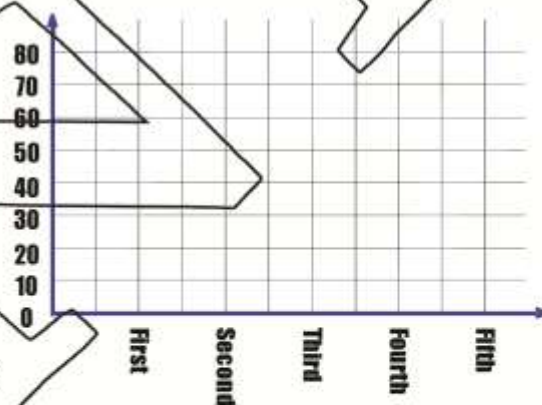
The difference between the highest and the lowest temperature was



The following table shows the heights of four towers:

The tower	1 st	2 nd	3 rd	4 th	5 th
The height	40	10	50	20	30

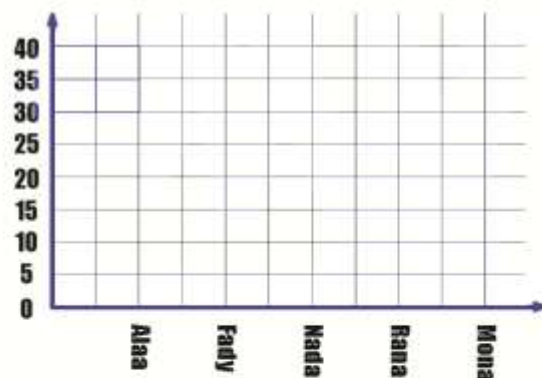
Represent these data by broken-lines



Complete the following table and the opposite graph :

pupil	Alaa	Fady	Nada	Rana	Mona
Marks	30	5	20	15	35

Represent these data by broken-lines



Probability

Certain (sure) - **Possible** - **Impossible**

أكيد - ممكن - مستحيل

Complete by write " Certain " - " Possible " - " Impossible " :

- 1) It is to rain gold
- 2) It is that the sun will rise in the morning
- 3) It is that I will get a high grade in mathematics.
- 4) It is to find a man three metres high

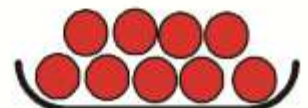
In the opposite figure there are nine black balls in a container
Complete by write " Certain " , " Possible " , " Impossible " :

- 1) It is to draw a black ball.
- 2) It is to draw a white ball.



In the opposite figure there are nine white balls in a container
Complete:

- 1) It is certain to draw a ball.
- 2) It is impossible to draw a ball.



In the opposite figure there are nine balls in a container
Complete by write " Certain " , " Possible " , " Impossible " :

- 1) It is to draw a black ball.
- 2) It is to draw a white ball.
- 3) It is to draw a green ball.
- 4) It is to draw a ball.



Calculating Probability

Certain

Possible

Impossible

1

Fraction

0

The probability of a certain event is 1

The probability of an impossible event is zero

If a container holds 5 black balls and 4 white balls , one ball is drawn blindly

1) The probability of the drawn ball being black =

2) The probability of the drawn ball being white =

3) The probability of the drawn ball being red =

3) The probability of the drawn ball being green =



If you throw a dice (die) once , what is the probability of seeing :

1) the number one on the upper face =

2) the number 8 on the upper face =

3) an odd number on the upper face =

4) an even number on the upper face =

5) a number greater than six on the upper face =



If we flip a coin, we get either heads or tails . complete :

1) the probability of getting **heads** =

2) the probability of getting **tails** =



tails



heads

In a class of 40 pupils , 23 are boys and 17 are girls . one day , one of the pupils was absent .

What is the probability of the absent pupil being a boy ?.....

What is the probability of the absent pupil being a girl ?.....